



Munitions Response Program Update

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Program Outlook



IRP / MRP funding 'cross-over'

Training:

- **Basic MRP (3/19/2018 - Norfolk)**
- **Advanced MRP (5/8/2018 – Norfolk, 8/28/2018 – San Diego)**
- **Possible hands-on specialized training (under consideration)**

MILCON & MR

Tomorrows Technologies – Today ! (and Wed)

Continued focus on quality and consistency – aligned with mission

- **QAPP requirements**
- **MR Review Process**
- **Defensible Site Outcomes**

ER site related:

- Dam Neck Annex
- Quantico
- San Diego
- Key West
- Pearl Harbor

Non-ER site related:

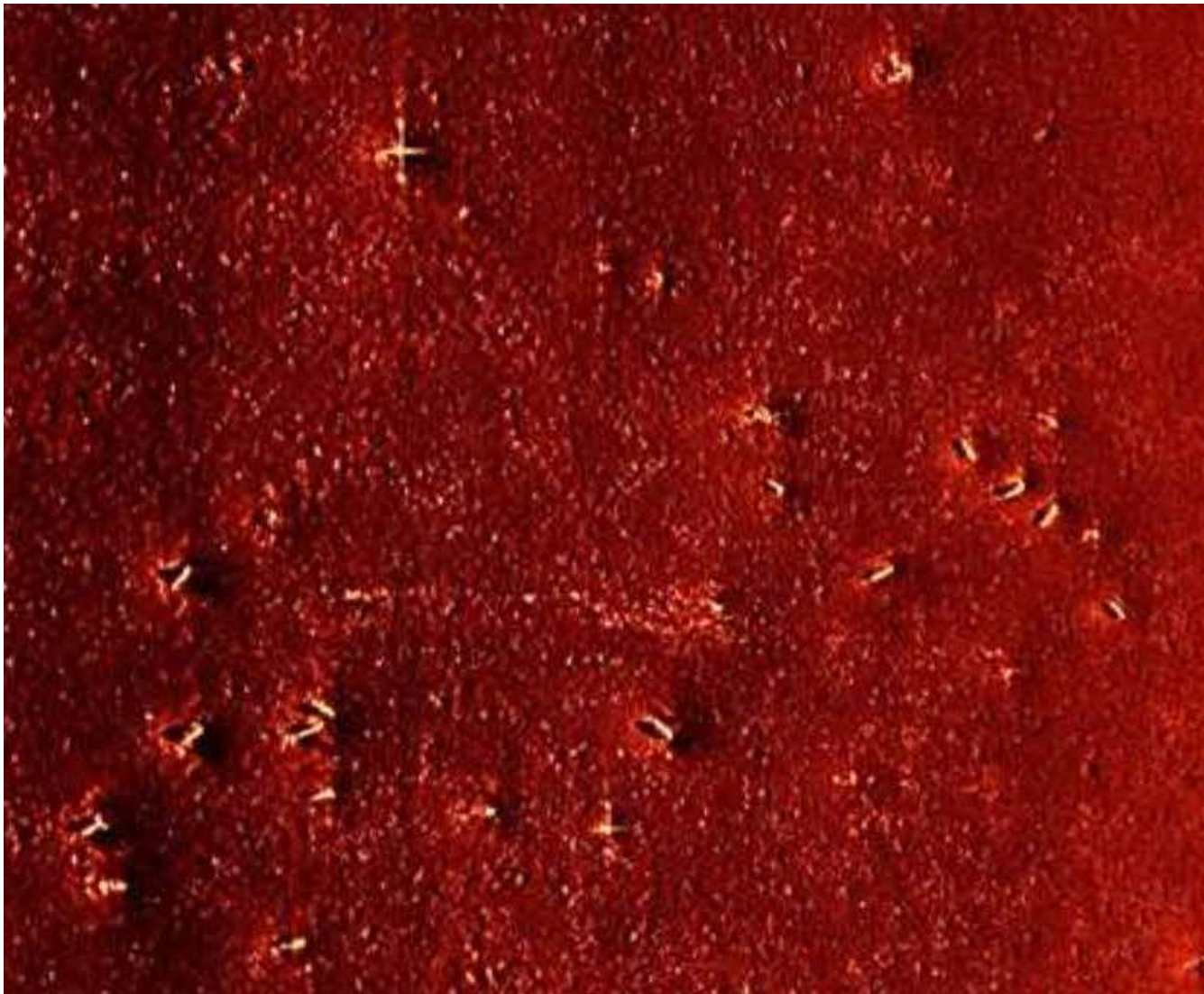
- Guam
 - Massive construction (\$8-9B)
 - Former battlefield, widespread MEC impacts
 - Possible TDY “opportunities to succeed” – project based

Technology Outlook

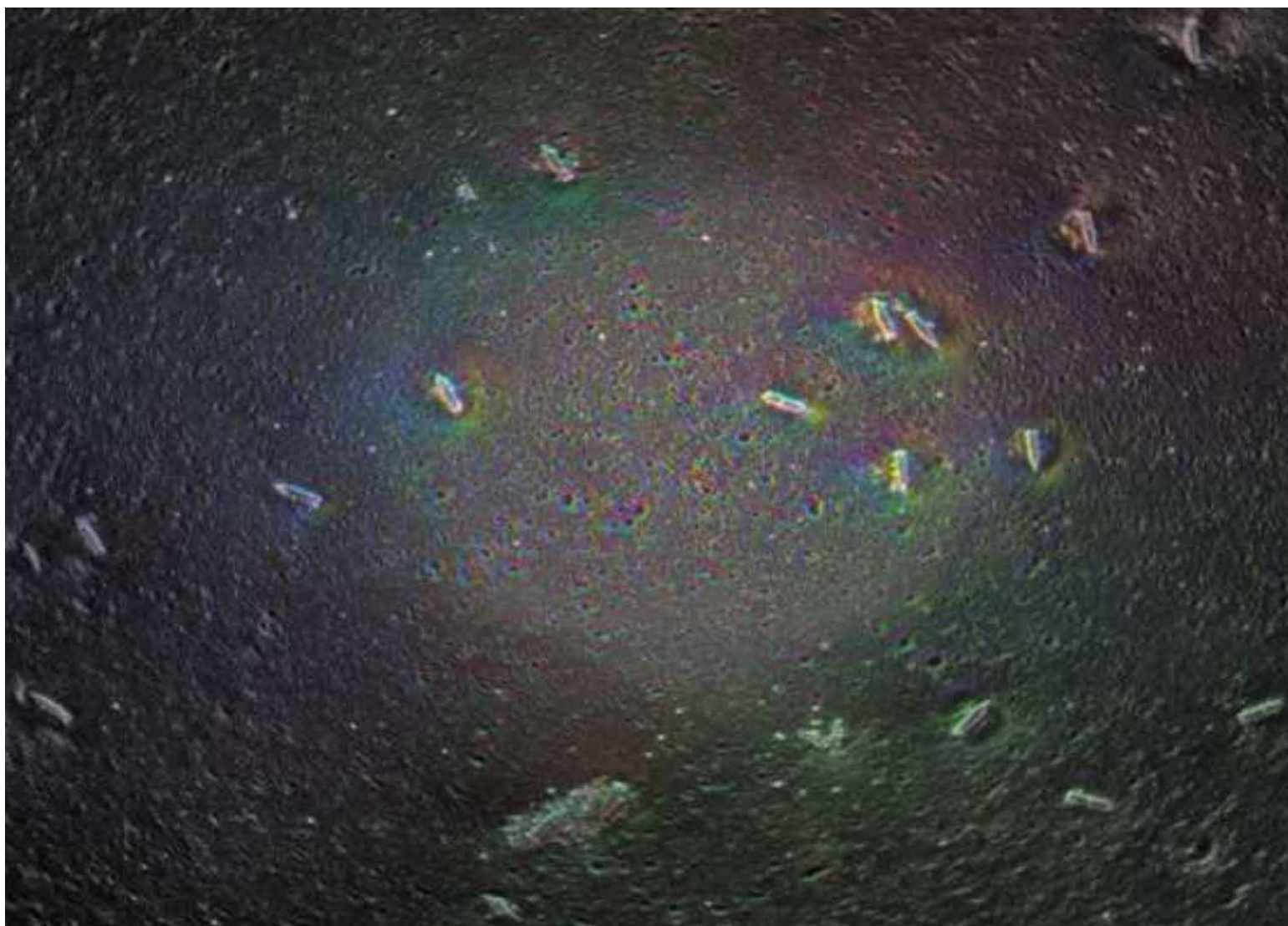


- **Advance Geophysical Classification**
- **EODTECHDIV**
- **SERDP/ESTCP**
- **ONR/NSWC/Fleet**

Fleeted UUV system – MR site survey



Fleeted UUV system – MR site survey



Fleeted UUV system – MR site survey



Defensible Site Outcomes - Investigation



- **Begin with end in mind – Future Land Use**
- **“Living” Conceptual Site Model**
 - Include Vertical Site Model
- **Source, Pathway, Receptor**
 - Focus investigation to problem
 - Risk – What, When, Who, How, Where, Why
- **Question assumptions**
- **Require proof not hypothesis (testing/validation)**
- **Goal – Provide data which bounds the temporal and spatial extent of the problem so that informed decision-making can proceed**

Q: How does a QAPP play into this process ?

Defensible Site Outcomes - Remediation



- **New Technologies = New Approaches**
 - RPMs/Contractors will need to adapt, Advanced Classification is a possible disruptive tech, vs. evolutionary as transition from Magnetometers -> Electromagnetic Induction instruments
- **Realistic Evaluation of remedial alternatives (including UU/UE)**
 - Should no longer assume 'can't find everything'*
 - Certain sites/conditions more conducive to certain outcomes
- **Principal Threat Waste**
- **Goal – If removal is a feasible option (cost, schedule, impact) this is the preferred option.**
 - Explosive risk is not necessarily diminished by time, it may even be enhanced
 - 1800s cannonballs – still contain viable explosive materials

Q: How does a QAPP play into this process ?

Defensible Site Outcomes Long Term Management (LTM)



- **Perception of Risk**
 - Explosive Hazard/Chemical (MCs)
 - Often overstated
 - Range 40+ years old, LTM/LUC requiring quarterly sampling, monthly MEC inspections – What were drivers (erosion, deposition, frost, public use ?)
- **Controls should match future land use**
 - As simple as signs, or as complex as cap/fence/barriers/education
- **Should have triggers for scale up/down**
 - Quarterly monitoring for MC should have an end point
 - Storm events, other impacts
- **Monitored Natural Attenuation/Other ‘wait and see’ approaches**
 - Explosive hazard – Not Naturally Attenuated
 - MC – Possible, but not likely from most munitions to any significant degree while intact
- **Underwater – Joint DOD efforts to address**

Quality Assurance / Quality Control (QA/QC)



- Required at all phases of work
- Developed during QAPP process
- Who can perform QA ?
 - EOD TECHDIV
 - LANT (Mike Green)
 - EXWC (Battelle)
 - **3rd Party (not hired by prime) contractor**
- Who is responsible for QA ?

